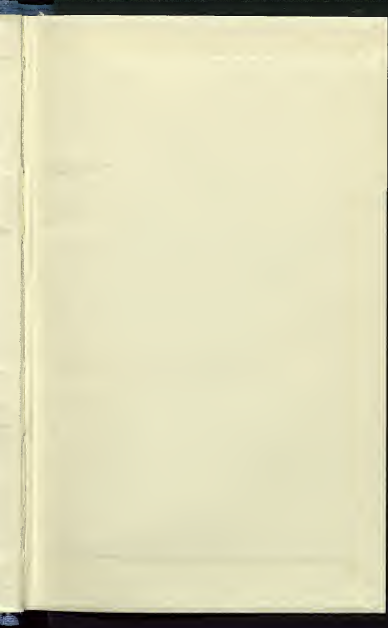
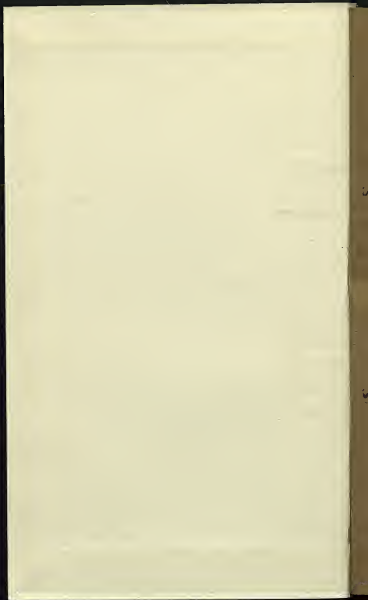


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ON THE
CULTIVATION & PRESERVATION
OF
SWEDISH TURNIPS.

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LETTERS

ON THE

CULTIVATION

AND

PRESERVATION

OF

SWEDISH TURNIPS.



NORWICH:

PRINTED BY STEVENSON, MATCHETT, AND STEVENSON.

1816.



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To Robert Hauland

ON SWEDISH TURNIPS.

To THOMAS W.M. COKE, Esq.

HONOURED SIR,

In consequence of your approval of two letters, written by me, on the subject of the Cultivation and Preservation of Swedish Turnips, inserted in the *Farmer's Journal*, year 1814, and re-published in the same year by order of the late Earl of Chesterfield, and you, Sir, having been pleased to express a wish to have a second edition of those letters printed, for the purpose of being circulated amongst the highly respectable yeomanry and tenantry upon your extensive estates in this county, I have, in obedience to your command, reviewed those letters, and I now take the liberty of stating, that my practice and experience subsequent to the letters being published, fully confirm me in opinion, that the theory treated of in them is perfectly correct in principle, and reducible to practice.—The method recommended in the letters, of drawing turnips *off* the ground, and

placing them elsewhere for consumption, is applicable to local situation *only*, to adhesive soils, and to retentive and impervious subsoils—such as where it would be injudicious to attempt to eat turnips upon the ground. Lands of this texture and description cannot be properly termed turnip soils, and it has been held as a matter of doubt, whether turnips could be grown to advantage upon such soils. Some agriculturists have even gone so far as to say, that the culture of turnips should never be attempted upon any others than what are termed real turnip soils. Experience has, however, shewn the fallacy of such reasoning, for it is now admitted, that heavy land, *properly cultivated*, not only produces the weightiest crops of Swedish turnips, but also those of the best quality.

As the greater part of the land upon your extensive Estates in this county is of a description to be benefited by the treading of sheep in eating turnips *upon* the ground, it would be highly improper, I may say ruinous to such soils, were the turnips to be drawn *off*.

And here, Sir, I am happy in having it in my power to say, that from the observations I have already made, the pernicious practice of drawing turnips *off light soils* is not much resorted to upon your Estate, or at least to a very limited extent, by all good farmers.

Although light turnip soils are not so much adapted for the growth of Swedish turnips as those of a deeper and stronger nature, yet that hardy and useful vegetable is now considered so indispensably necessary for the supply of spring food for stock, that a certain extent of land (in proportion to the number of stock kept) is usually sown with Swedish turnips upon almost every farm, even of the lightest description of soil.

In a county like Norfolk, (abounding with game) the preservation of Swedish turnips from the attacks of those depredators claims the farmers particular attention, and the system called *placing*, which I recommended as the best method of preserving Swedish turnips when drawn *off* strong soils, is equally applicable for their preservation, when they are to be eat *upon* the ground on light soils. The method I suggest is as follows.

Let common hurdles be set in squares of 4, 6, 8, 10, &c. &c. as most convenient in number and distance apart in the field; the largest and best turnips may then be pulled up and prepared for *placing* (in the manner I have directed in my published letters) let them be thrown towards the squares as they are pulled up, and they may then be *placed* with little trouble, and at a trifling expence. The small turnips and refuse left upon the ground may be eat up by

the sheep immediately after the operation of *placing*. The open parts of the hurdles may be drawn with thorns or briers, which will effectually preserve those depots from hares and rabbits, and the tops may be covered with hurdles, thorns, litter, &c. &c. to preserve the store from wood-pigeons and other winged depredators. The turnips will, by those means, be preserved in perfect security; they will be accessible at all times, in severe weather, in Winter, when turnips left in the ground cannot be got without great difficulty and expence, and they will not exhaust the land by running to seed, in Spring, which is but too frequently the case in common practice.

When the turnips are taken out of the squares for use, they should be strewed regularly over the field, and also the soil on which they stood in the squares should be spread about, as otherwise the land would not be regularly manured, and would be perceptible in the succeeding crops.

The scheme I have here suggested does, I acknowledge, appear a little chimerical, and it may with justice be remarked, that it would be attended with considerable expence, and much inconvenience, in preserving a whole crop of turnips upon an extensive scale, in the *placing* method. In answer to such well-founded objection, I reply, if inconvenient, and too expensive to secure a whole crop, why not try a

part in the first instance, and in future increase the quantity or discontinue the practice, as experience and discretion point out. Custom habituates us to all things ;—a farmer submits without murmuring to the trouble and expense incurred in securing the other products of his fields, because it is customary, and he finds a benefit in doing so ; it follows (upon a parity of reasoning) that he will also submit to similar trouble and expense in securing his crops of Swedish turnips, if he finds an interest in doing so ; and the only way of judging of the propriety or impropriety of the measure, is by a series of fair, unbiassed, and impartial experiments, for it must be practical men alone, and not theorists, who are capable of deciding as to matters of fact in Agriculture.

Sir, having finished my remarks upon the preservation of Swedish turnips, I will take the liberty of troubling you with a few observations upon the Cultivation of that inestimable vegetable, which observations (if transposed) would perhaps be thought more regular. But I have been induced to commence this communication with *remarks upon the preservation of the crop*, as being more immediately in obedience to the order I have had the honour of receiving from you, (viz.) to review my former letters published upon the subject. It would be deemed presumption in me were I to attempt to criticise upon the general

cultivation of turnips, in this far-famed and justly celebrated agricultural county. I will therefore confine my remarks to one sort or variety only, (*viz.*) Swedish turnips. I, in fact, consider myself in duty bound to you, Sir, and in justice to my own character, to enter into some explanation upon this subject.

It will not have escaped your memory, that some years ago I had the honour of addressing myself to you, (by letter) upon the same subject. I at that time hazarded an opinion that Swedish turnips could be grown to the greatest advantage, if sown in rows with Cook's drill, upon flat work; but subsequent practice and observation have convinced me, that although row culture upon flat work is much preferable to broad cast, yet the Northumberland ridge is much superior to either, even upon light soils, for as to heavy soils, I should suppose there can be but one opinion in favour of the ridge. Indeed, I may venture to assert, that any sort of turnips can be grown to the greatest advantage in the ridge method, upon all heavy soils, incumbent upon retentive subsoils, in preference to cultivating them on the flat.

On a cursory view, the process of sowing turnips upon the ridge appears tedious and complicated, and as if difficult to be executed with due precision and regularity; and young practitioners actually do not unfrequently fail in their first attempts; some

few of those, for want of a little perseverance, (and biassed by the opinions of their servants) give up all farther attempts at the ridge culture of Swedish turnips, and sit down contented, with foul land, and a scanty crop, produced from their usual mode of cultivation. While others, possessing more energy, easily overcome all trifling obstacles, ultimately enjoy the pleasure of viewing the successful result of their perseverance, while they reap the benefit arising from their industry.

Although this observation does not strictly apply to this county, yet I have been induced to mention it from a recollection of having witnessed the occurrence in other counties. The hint may also serve as a beacon.

From repeated trials of distances between rows in the ridge system, I am of opinion, and venture to recommend 27 inches as the most correct. The distance between plants *in the row* should be regulated according to circumstances (*viz.*) the capability of the ground, the strength and quality as well as quantity of the manure, the time of sowing whether early or late, &c. &c. In the first singling out of the plants in the row, I prefer leaving the healthiest, and most vigorous growing, in preference to setting them out equidistant without regard to the state of the plants; and I also recommend, that the plants should be *singled out* in the first instance, but left doubly thick,

or only at half distances to what they will ultimately be required to stand for a crop. : A tolerably accurate idea may be formed of the proper distances to which the plants should be left in the row, by comparisons drawn from the following tables, which will also, I trust, go a great way in removing any prejudices which may be formed against the apparent unnecessary wide distance of 27 inches between the rows.

TABLES OF CALCULATIONS

On Crops of Swedish Turnips grown upon the Northumberland Ridge.

First.—Suppose the rows to be 27 inches apart, and the turnips to be set out at 12 inch intervals in the row, each turnip will then occupy 324 square inches of surface, or four turnips in a square yard, consequently there will be 19,360 turnips upon an acre.

	<i>Tons. Cwt.</i>
And suppose those turnips to weigh one	
pound each (upon an average) the weight	}
per acre would be	

Suppose the turnips to average $1\frac{1}{2}$ lb. each

The weight per acre would be	12 19 $\frac{1}{2}$
------------------------------	------------------------

If 2 lb. each	17 5 $\frac{1}{2}$
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If 2 $\frac{1}{2}$ lb. each	21 12
-----------------------------	----------

If 3 lb. each	25 18 $\frac{1}{2}$
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If 3 $\frac{1}{2}$ lb each	30 4 $\frac{3}{4}$
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If 4 lb. each	34 11
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Second.—Suppose the rows to be 27 inches apart as in the first table, but the turnips to be set out at only 10-inch intervals *in the row*, each turnip will then occupy 270 square inches of surface, or about $4\frac{1}{2}$ turnips in a square yard, consequently there will be 23,232 turnips upon an acre.

Tons. Cwt.

And suppose those to weigh 1 pound each, upon

an average, the weight per acre would be	10	17 $\frac{1}{2}$
If 1 $\frac{1}{2}$ lb.	15	11
If 2 lb.	20	15
If 2 $\frac{1}{2}$ lb.	25	18 $\frac{1}{2}$
If 3 lb.	31	2 $\frac{1}{2}$
If 3 $\frac{1}{2}$ lb.	36	6 $\frac{1}{2}$
If 4 lb.	41	10

I will not here attempt to enter upon the subject of the proper application of manures, but take it for granted, that farm-yard muck, (in a medium state between green and rotten) is intended to be used for the ridge turnips, if so, I recommend that the rottenest part of the muck be laid upon the light land, and the longer part upon the strong soils. Care should be taken that it is well shook to pieces, and spread regularly along the rows, and in covering the dung with the plough, particular attention should be paid to see that it is not covered too deep, for the nearer it is to the roots of the young plants, the quicker will be their growth, (and the sooner they



are pushed beyond the ravages of the fly the better). If a small portion of rape dust is drilled *under* the seed it will promote vegetation and fertility.—Attention should also be paid to depositing the seed in a proper manner along the tops of the ridges, for if buried too deep, it will not vegetate. This observation is also applicable to turnips sown upon the flat, particularly when the ground is over moist and raw.

I consider a well constructed horse hoe indispensably necessary for the proper cultivation of turnips sown in rows, either upon the flat, or ridge, for so soon as the young plants appear above ground, and the fly commences its ravages, the hoe should be set to work between the rows, and this operation should be repeated and persevered in until the turnips are fairly out of reach of the fly. The horse-hoes, denominated tormentors, now in use in Holkham Park, are admirably adapted for early hoeing, either upon the ridge or flat. They eradicate all weeds between the rows, disturb and frequently destroy the fly, promote vegetation, and run no hazard of burying, or injuring the tender plants of turnips in the row. Great inconvenience and serious injury have heretofore been sustained by using improperly constructed, and inefficient horse-hoes, inasmuch as they could not be introduced between the rows of turnips at the early periods of their growth, lest they should bury the

tender plants, by which means the fly remained undisturbed, and the weeds generally got so much a-head, that it became impossible to introduce the horse-hoe at all, without dragging the weeds in heaps, and danger of overwhelming, and destroying the whole crop of turnips.

When the field intended to be sown with turnips upon the ridge, has an uneven surface, and the hills steep, the ridges should be drawn in an oblique direction across the hill, (viz.) in a line at a medium between a perpendicular or upright, and a horizontal or cross, or they may be drawn upright in short breaks, with cross head-lands.

When the turnip ground is to be ploughed for the succeeding crop, it should either have two furrows across ridge or have one furrow and one scarifying before the drill.

Sir, having now finished my remarks upon the subject of my published letters, (before alluded to) I humbly submit them for your inspection, and should they be considered worthy of your notice, I shall feel truly happy in having satisfactorily executed a part of the duty incumbent upon me—*obedience to your orders.*

I am,

Honoured Sir,

Your humble and obedient Servant,

FRANCIS BLAIKIE.

(COPY.)

To the Editor of the Farmer's Journal.

Bradby Hall, January 11th, 1814.

SIR,

Although, amongst the various improvements in agriculture, introduced, or brought into general practice of late years, few are of greater importance than the cultivation of Swedish turnips, yet prejudices, apparently well founded, still exist against that valuable esculent.

The intention of the present communication is to endeavour to remove those prejudices, by the means of answering and pointing out a remedy for the principal objections which I have heard stated as militating against the still more general cultivation of that inestimable vegetable.

The objections I allude to are, FIRST—That when Swedish turnips are grown upon clay soils, or upon loams incumbent on retentive subsoils, they cannot

be eaten on the ground, but must be drawn off, to be consumed elsewhere. And as stock require a regular supply of food, to keep them in a growing state, it follows, that to procure that supply, the land must frequently be poached and injured, by being carted upon in wet weather

SECOND—That when Swedish turnips are grown upon light soils, and stand for spring use, they throw out fresh fibres, and rob the land by reason of drawing additional nutriment from it.

And THIRD—That Swedish turnips are liable to be devoured by game. I have also heard various other objections, but of less importance than those already mentioned.

I hope it will not be deemed impertinent nor bordering on egotism, my here giving a concise account of the cultivation of Swedish turnips, on the EARL of CHESTERFIELD's farms at this place, as that will naturally lead to the more immediate object of this communication, viz. the removal and preservation of the crop, and in doing so with the least possible injury to the land.

We here generally prefer deep marley loams for growing Swedish turnips: yet we sow them with success upon various soils, in all the intermediate shades of loam between clay and sand, and frequently upon strong loams, incumbent on impervious till.

subsoil. We make it a rule to begin sowing (on the stronger soils) in the last week in May, or first week in June, and continue sowing Swedes till the second week in July. They are all sown in drills, in the Scotch or Northumberland method, are horse hoed *between* the rows, and hand-hoed, and thinned *in* the rows, by women and children. We consider the early-sown Swedes to be full grown by the middle of November, and in some seasons rather earlier. We then take the first favourable opportunity of the land being in a proper state for our operations, when all spare hands, (men, women, and children) are set to work. The turnips are pulled up, and the roots cut from the bulbs, the tops being left on. Old gorse or bill-hooks, broken sickles, or reap hooks, and such-like implements answer for the purpose. The turnips are thrown into carts, and conveyed to an orchard, or some other piece of old turf land, most convenient to where they are intended to be consumed. They are there shot out of the carts in heaps, and afterwards *placed*, as we term it; that is, the bulbs are placed close to and touching each other, with the tops uppermost, and only one turnip deep. An acre of good turnips from the field, occupy a much less space when placed, than can readily be imagined by those who have not tried the experiment. In this manner we endeavour to secure one or two months

supply for the stock intended to be fed with them, and find them keep good the whole winter. If the weather proves very severe, a slight covering of litter is thrown upon them. The depots are kept so far sacred, as to be only resorted to in cases of emergency, such as when the land is too wet to be carted upon without doing injury. In times of severe frost, deep snow, &c. &c. while at every favourable opportunity in course of the Winter, we keep adding to the store in preserve. As soon as the turnips are removed from the field, the ploughs are set to work, and the land drawn up into such sized ridges as are thought proper, by this means the strong soils become pulverized, and the spring work expedited as the ground only requires to be scarified and harrowed to make it in a proper state to receive the succeeding corn crop, which is always drilled in.

With regard to the SECOND objection stated:—we make it a rule in Spring so soon as the turnips begin to strike fresh fibres into the ground, and the tops run up to seed, to draw off such portion, as are not required for the immediate supply of the stock, and place them in the manner before described, if under the shade of trees in the Spring will be an advantage. In such situations we have had them keep good till Midsummer; for they are not liable to rot, nor will they become too dry for use.

As to the THIRD objection, the complaint must be partial, as it can only happen, in a serious degree, where game are too plentiful, and where the cultivation of Swedish turnips is not sufficiently attended to. In such districts, the practice here recommended, of removing the turnips from the field and placing them in a narrower compass, will be found the most effectual means of securing them from the attacks of those depredators.

On these farms we have tried various methods of preserving Swedish turnips. Such as by cutting the roots and tops off and camping the bulbs in the manner of potatoes, also by storing them in barns and other outbuildings, but have never succeeded so well as by the method here recommended.

Should you, Sir, think this detail worthy of a place in your Journal, it will probably be remarked by some of your readers, that the practice here called *placing* is not new. I am aware such a remark would be perfectly correct, but I have reason to believe, that, although not new, it is not in general use; and it is therefore probable that by your inserting the communication in your paper, it may be the means of introducing the practice to some districts previously unacquainted with it.

I am, Sir, Your humble Servant,

FRANCIS BLAIKIE.

To the Editor of the Farmers' Journal.

Bradby Hall, April 6th, 1814.

SIR,

In a letter addressed to you, dated 11th January, 1814, I communicated a detail of the method practised at this place for the preservation of Swedish turnips; and as you thought that letter of sufficient importance to be worthy of a place in your Journal, I am induced to believe the following detail (as being a continuation of the same subject,) may also prove acceptable.

In the first weeks of last November, we secured the produce of several acres of Swedish turnips in the manner called *placing*, as described in the letter before alluded to. Such part of those turnips as were not consumed by stock, remained in the depots the whole of this very severe winter, without any covering whatever, except by occasional falls of snow. They were very little injured by the severity of the weather, while two-thirds of the remainder of the same crops left in the fields perished, and became

rotten ; and in some parts of the fields where the snow was drifted off, not one turnip in ten remained sound. We have now (at the date of this letter) a considerable quantity of *placed* turnips perfectly sound and good, remainin gin the depots ; the bulbs have thrown out young fibres, and the tops are pushing up. Were we to remove these turnips, and replace them on fresh turf, the vegetation would be checked, and they would continue sound for months to come. This detail will probably be thought mysterious by those who have never tried the experiment. It certainly does appear paradoxical that Swedish turnips should resist the severity of the weather better when treated in the manner recommended, than if left in the field where they have the protection of the earth partly round their roots ; such, however, is the fact.

I have observed, that when turnips from the depots are given to stock in the spring months, they do not reject them, but on the contrary, eat them with avidity ; yet when they are mixed with turnips fresh from the field, sheep in particular prefer the latter. This seeming objection does not militate against the great advantages otherwise obtained by securing turnips in the manner recommended.— These I state to be, **FIRST**, removal from the field with the least injury to heavy land. **SECOND**, more certain preservation of the root. **THIRD**, the means

of obtaining a certain supply for the stock in severe weather. And, FOURTH, security against the destructive ravages of game. In the latter case, if the depots are not otherwise protected, they may be readily guarded by a rough stake and thorn-wattled hedge: hares and rabbits will seldom attempt to break through a dead thorn or gorse hedge, although they will soon eat their way through a live one:—for instance, such game are very destructive to young quicksets, but if a few dead small branches of thorns, briers, gorse, or other rigid plants be drawn along the young hedge-rows they will be effectually protected, as our experience at this place has demonstrated.

I leave it to those better qualified to give a satisfactory or philosophical reason, why Swedish turnips are better preserved by being *placed* in the manner I have recommended, although they are left exposed to the subsequent severity of the winter frosts, than if they were left in the field, where the earth partly covers the bulb; such, however is the fact, and it may be sufficient for the practical farmer to be advised of it.

Although, as I have before stated, the *placed* turnips keep sound in the depots without any covering, yet I advise, that on the appearance of severe weather a little loose straw be thrown over a part, as stock will certainly prefer turnips not frozen.

I have not discovered any great diminution of weight in the preserved turnips, nor any difference in the stock thriving, when kept on them, or on others fresh from the field.

I give a detail of the following circumstances as being applicable to the subject, the hint may also prove instructive. Notwithstanding the unprecedented severity of last winter, there now is, in THE EARL OF CHESTERFIELD'S kitchen gardens, at this place, an abundance of healthy cabbage, cauliflower, and lettuce plants, which have stood the Winter without any protection or covering. His Lordship's gardener, (Mr. GROVES,) has made it a practice, when the young Winter and Spring vegetable plants grow over luxuriant in Autumn, to pull them up and expose their roots to the vicissitudes of the weather for a day or two; he afterwards replants them in their former places, and in some instances, when the weather has been very mild late in the season, he has repeated the operation a second and even a third time. This practice stagnates the growth of the plant, hardens it, and invariably enables it better to withstand the severity of the following Winter. To this practice, which was followed last Autumn, Mr. GROVES attributes his wonderful success in preserving the before-mentioned vegetables, while very few have survived in the gardens in the neighbour-

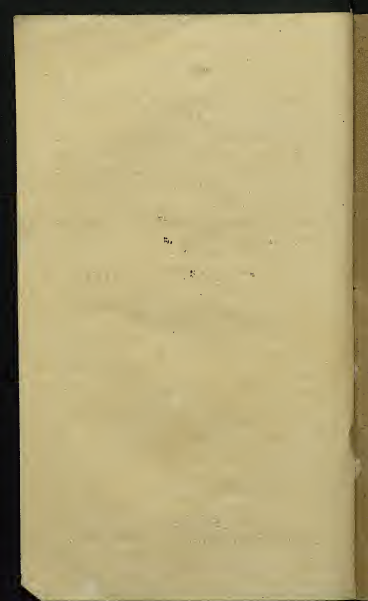
hood. The practice, simple as it is, is certainly well worthy of imitation.

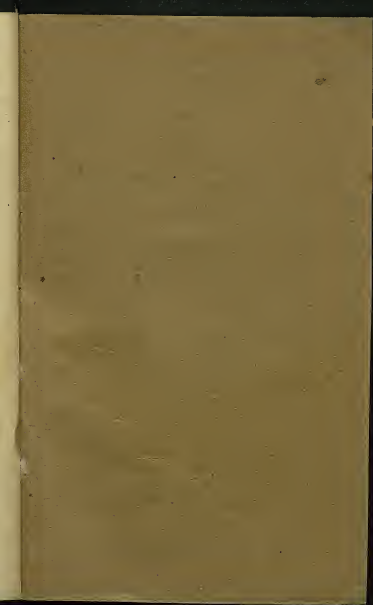
May not the same cause which operates so advantageously in the preservation of vegetables in the garden, be also assigned as a reason for Swedish turnips being better preserved by the method of *placing* than if left in the fields.

With this observation I conclude, and again subscribe myself,

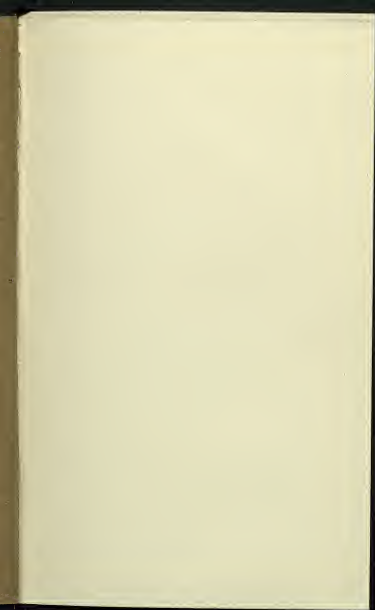
Your humble Servant,

FRANCIS BLAIKIE.







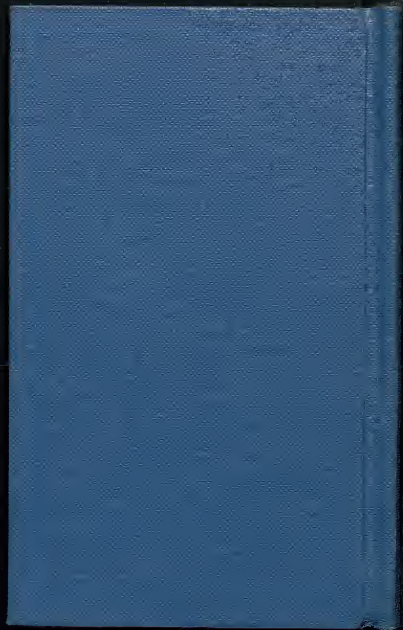


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